



King County
Rural Forest Commission

Minutes - King County Rural Forest Commission Meeting Thursday, September 10, 2015, Preston Community Center

Commissioners present: Nate Veranth, forest landowner (Chair), Daryl Harper, forest landowner; Dick Ryon, North Bend resident; Rex Thompson, forester; Doug McClelland, Washington Department of Natural Resources; Sandy Miller, forest landowner; Brandy Reed, King Conservation District; Cindy Spiry, Snoqualmie Tribe

Guests: Amy LaBarge, Gil Bortleson, Steven Mullen-Moses, Grady Steere

King County Staff: John Bethel, Water and Land Resources Division; Ingrid Lundin, Parks and Recreation Division; Linda Vane, Commission Liaison

Chair Nate Veranth called the meeting to order at 9:40 a.m.

Motions

Motion 9-0115 That the minutes of the July 9, 2015 meeting be approved. The motion passed unanimously.

Motion 9-0215 That the Commission write a letter of support for the amendment under consideration by the King County Council that would update the High Conservation Value Property Inventory. The motion passed unanimously.

Preliminary Landslide Investigation Update in King County River Corridors

John Bethel, Geologist, Water and Land Resources Division

John reported on research that the County initiated in the aftermath of the Oso landslide disaster. The study would identify areas of King County that are at most risk from landslides and assist planners in determining the steps that should be taken to protect citizens. John explained that to accomplish this it would be most important to clearly understand the landslide processes are happening in King County.

Introducing the topic, John explained that King County had had a landslide hazard map since 1990. This map, which was developed in order to delineate environmentally critical areas, demonstrated generally but not precisely where landslide issues are located. In 2015, newer technologies such as Lidar allow scientists to clearly locate the limits of landslide features, according to John. The initial phases of the project would be conducted by a team of scientists in the Water and Land Resources Division with funding from the Flood District, he said. The county's Department of Permitting and Environmental Review would be conducting a similar project to identify landslide hazards that would be used to update permitting practices.

The current study started in 2014 and the first section had been completed, said John. The project would be completed in 2016. The study would include zones at risk of landslides in selected areas of the county, with about half of landslide hazards in river valleys, he said. Included would be mapping upstream far enough of known landslide hazards to include process that could influence conditions downstream.

John said that the study involved identifying the various processes that can influence landslides. He provided an overview of these processes, and the techniques used to identify and evaluate potential impacts. The categories of landslide processes included:

- Shallow (1-2 meters thick, the most common in lowlands)
- Debris flows and alluvial fans (more common in alpine areas)
- Slumps
- Runout and debris dams
- Rockfall

John concluded the presentation by addressing the question that initiated the present study: is there a chance for a long runout-type landslide like in Oso? John referred to a recent analysis of the Oso landslide by Richard Iverson of the USGS. Iverson developed a computer model that accurately simulated the Oso slide runout. Iverson also found, however, that if he changed the parameters just slightly in his model the results were very different, according to John. Thus, while the County's study when complete would be able to characterize landslides of the type that devastated Oso; the extent, when and how something like this would occur could not be determined.

Ecosystem Services Discussion

Facilitated by Nate Veranth, Commission Chair

Nate provided an introduction to the topic, explaining that the concept of ecosystem services had been brought up several times during discussions about the Comprehensive Plan update, so it appeared the some clarification on the meaning of the term would be useful for the Commission have. He said the Commission may want to work more on communicating the concept to the public. The public often seems to see this in terms of pure costs in terms of price or lost opportunities, and not taking avoided costs into account, he explained. Nate asked the group to share definitions of 'ecosystem services'.

Brandy Reed said that the King Conservation District had experience looking at ecosystem functions and values. She explained that the construct had its origins in economics and specifically in valuing environmental actions in a way that traditional analysis does not. In other words, she said, when one looks at the cost of business in terms of ecosystem services, one is evaluating those costs in terms of the economic value associated with the resource side of the equation. And not just the money generated and money lost, she added. The idea would be to find a way to express environmental benefits in economic terms so that can be rolled into economic analyses, she concluded.

Rex Thompson provided the example of the issue of wastewater drainage systems and how one would compare the value of those to natural systems like wetlands and streams that may already be in place serving the same drainage function. Such a comparison could reveal that if a development was configured in a different way, the project cost could be lowered by utilizing the natural systems instead of building new drainage facilities. He described the concept as an economic trade off, but one that recognized that there are vast values in ecosystem services already on the ground.

Rex provided an example of one way in which ecosystem services analysis had already been applied. The WRIA 9 Salmon Forum Steering Committee commissioned a study that looked at the lower Green-Duwamish Sub-watershed. The study found that natural ecosystems in the sub-watershed provided services that deliver many values to urban settings. A question arose out of that study: how would that information justify spending money in the upper watershed? One of the concepts WRIA 9 came up with was that of a self-taxing Watershed Improvement District (WID) as a means of funding environmental

services enhancement. Rex explained that this example would be applicable in the context of urban development, where instead of investing in pipes and pumps, the alternative would be paying into a WID with the funds going to improve ecosystems or preserve land elsewhere in the watershed.

Linda Vane gave a short presentation outlining the approach used in the WRIA 9 study, *Ecosystem Services Enhanced by Salmon Habitat Conservation in the Green/Duwamish and Central Puget Sound Watershed* (2005). The authors used GIS analysis and economic value assumptions from the professional literature to estimate a dollar value of \$1.7-6.3 billion annually for the 22 ecosystem goods and services such as flood protection, fish production and recreation. Linda explained that a lot of that estimated dollar value was based on “avoided costs,” meaning, to use Rex’s example, the money saved when native vegetation and ecological functions are retained on a site instead of building and maintaining a drainage system of pipes and pumps. Linda provided a brief description of the other kinds of costs for built infrastructure that were included in the model such as capital costs, maintenance, cost of borrowing, and depreciation.

Discussion: There was a broad discussion about the concept of ecosystem services and the calculation of values, including the following points:

- It might be said that when human settlements move into pristine environments that the settlement provide human values such as aesthetic and social benefits to people, but human presence continually degrades the natural environment. The ecosystem services concept would essentially deal with tradeoffs.
- The WRIA 9 estimate of the economic value of ecosystem services showed a very wide spread (\$1.7-6.3 billion), that in business would be too imprecise to be useful. Decision makers would need better cost assumptions and a narrower spread to have confidence in the findings.
- Assigning dollar values to the benefits of ecosystem functions is difficult. The King Conservation District did such a study to develop a system of rates and charges for the services provided by the District. That analysis also had a wide spread. The problem is that the field of ecosystem services analysis has not developed to the point where it is precise. It is still largely a theoretical analysis to help understand potential tradeoffs.
- Seattle Public Utilities had a valuation study done for the Tolt Watershed Plan to help the utility decide whether to let the forest grow for carbon sequestration or cut some trees to get more value from that source. They were able to use the analysis to help make the decision to do a thinning.

Nate asked the commission if they wanted to look at this more closely and consider advising the County to put more attention on the ecosystems services concept.

Action: The consensus was the commission would like to hear more on this topic. It was proposed that two or three people who have been working on this be invited to a future meeting.

Proposed additions to King County’s Land Inventory

Ingrid Lundin, Natural Resource Lands Program, King County Parks Division

Ingrid reported on proposed technical amendments to related to King County Charter “Open Space Amendment” (Section 897), which identifies an Inventory of High Conservation Value Property. These are properties in which the County has an ownership interest through purchase or easements. The Charter requires a supermajority of the Council to make changes to the inventory.

An amendment currently under consideration by the Council would allow certain technical corrections needed to update the inventory to current and accurate information. According to Ingrid, the proposed corrections would add 10 new sites to the inventory and add new acreage to 38 previously listed sites, bringing the total additional acres with this higher level of protection to 4,020 acres. In many cases, these additions to the Inventory will expand and connect sites already identified as having high value as conserved lands.

Action: The Commission voted to empower the Executive Committee to prepare a letter of support for the proposed amendment to the King County Council on behalf of the Commission.

Staff and Agency Reports and Announcements

King Conservation District (KCD) – Brandy Reed reported that the KCD was ramping up to fill a new Urban Forester position and inaugurate a new suite of urban forestry services. The KCD had issued an RFP to local jurisdictions to solicit proposals for urban forestry projects.

Commission Administration – Linda Vane announced a Firewise workshop on Sept. 24 at the SHADOW Environmental Education Center.

King County Comprehensive Plan Update – Linda Vane provided a brief update on the Comprehensive Plan Update schedule, advising the Commission that the public review draft would be released on November 6th. She said that there would be a discussion of the Public Review Draft at the November meeting of the Commission.

Public Comment

There was no public comment.

The meeting was adjourned at 12:30 p.m.

Next meeting

The next meeting will be held on November 11, 2015, at the Preston Community Center.

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